

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claims 1-22 (canceled)

23. (Currently amended) A rolling cone rock bit, comprising:

a drill bit body defining a longitudinal axis, a top, and a bottom;

a nozzle boss having a bottom and a top;

a first leg formed from said drill bit body, said first leg providing a mud flow ramp from a leading edge of said first leg, wherein said mud flow ramp is disposed at an angle to said longitudinal axis, at least a portion of said mud flow ramp being at an angle from 10 degrees to 80 degrees to said longitudinal axis, and wherein said mud flow ramp has a top;

a junk slot defined by said mudflow ramp, drill bit body, and a junk slot boundary line;

a first rolling cone rotatably attached to said drill bit body,

wherein said junk slot has a cross-sectional area at each height along said junk slot and said cross-sectional area of said junk slot is greater at its top than at its bottom, and wherein a cross-sectional area exists between said nozzle boss and said mudflow ramp, said cross-sectional area increasing from said bottom of said nozzle boss to said top of said nozzle boss.

24. The rolling cone rock bit of claim 23, further comprising:

a nozzle boss formed from said drill bit body, said nozzle boss having a bottom;

wherein said junk slot is further defined by said nozzle boss, and where said cross-sectional area of said junk slot is greater at said top of said mud ramp than at said bottom of said nozzle boss.

25. The rolling cone rock bit of claim 23, wherein said junk slot boundary line is defined by the rotational movement of an outermost point on said first leg.

26. (Currently Amended) ~~The rolling cone rock bit of claim 23, further comprising:~~

A rolling cone rock bit, comprising:

a drill bit body defining a longitudinal axis, a top, and a bottom;

a first leg formed from said drill bit body, said first leg providing a mud flow ramp from a leading edge of said first leg, wherein said mud flow ramp is disposed at an angle to said longitudinal axis, and wherein said mud flow ramp has a top;

a junk slot defined by said mudflow ramp, drill bit body, and a junk slot boundary line;

a first rolling cone rotatably attached to said drill bit body,

wherein said junk slot has a cross-sectional area at each height along said junk slot and said cross-sectional area of said junk slot is greater at its top than at its bottom;

a second leg formed from said drill bit body, said second leg being adjacent to but leading said first leg,

wherein said nozzle boss is forms a side of said second leg.

27. (Currently amended) The rolling cone rock bit of claim 2326, wherein one side wall of every leg of said rolling cone rock bit is also a side of a nozzle boss.

28. The rolling cone rock bit of claim 23, wherein said mud ramp includes a first straight section and a second straight section.

29. The rolling cone rock bit of claim 28, wherein said first and second straight sections are disposed from said longitudinal axis between 0 and 80 degrees.

30. The rolling cone rock bit of claim 29, wherein said first and second straight sections are disposed from said longitudinal axis between 10 and 80 degrees.

31. The rolling cone rock bit of claim 29, wherein said first and second straight sections are disposed from said longitudinal axis between 0 and 60 degrees.

32. The rolling cone rock bit of claim 29, wherein said first and second straight sections are connected with a fillet surface.

33. The rolling cone rock bit of claim 28, wherein said first straight section is angularly displaced from said second straight section.

34. The rolling cone rock bit of claim 23, wherein said mud flow ramp includes a concave section.

35. The rolling cone rock bit of claim 23, wherein said mud flow ramp includes a convex section.

B1

36. The rolling cone rock bit of claim 23, wherein said mud flow ramp is a set of continuous curves.

37. (cancelled).

38. The rolling cone rock bit of claim 23, wherein said bit body has cylindrical shape.

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39. The rolling cone rock bit of claim 23, wherein said bit body has an conical shape.

40. (Currently amended) The rolling cone rock bit of claim 23, wherein said bit body ~~has~~ has a revolved shape.

41. The rolling cone rock bit of claim 23, further comprising:
a grease reservoir located on the top of the mud flow ramp.

42. (Currently amended) ~~The rolling cone rock bit of claim 23, further comprising:~~

A rolling cone rock bit, comprising:

a drill bit body defining a longitudinal axis, a top, and a bottom;

a first leg formed from said drill bit body, said first leg providing a mud flow ramp from a leading edge of said first leg, wherein said mud flow ramp is disposed at an angle to said longitudinal axis, and wherein said mud flow ramp has a top;

a junk slot defined by said mudflow ramp, drill bit body, and a junk slot boundary line;

a first rolling cone rotatably attached to said drill bit body,

wherein said junk slot has a cross-sectional area at each height along said junk slot and said cross-sectional area of said junk slot is greater at its top than at its bottom and further wherein there exists a grease reservoir located on the mud flow ramp surface.

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43. The rolling cone rock bit of claim 23, wherein said first leg is backturned.
44. The rolling cone rock bit of claim 23, further comprising:
a nozzle attached to said drill bit body; and
a fluid flow channel formed between said nozzle and said mud flow ramp.
45. The rolling cone rock bit of claim 43, wherein a side wall forming said nozzle also forms a side wall to a leg.
46. The rolling cone rock bit of claim 23, wherein said first leg has a backface at the periphery of said drill bit body, and said backface is parallel to said longitudinal axis.

47. The rolling cone rock bit of claim 23, wherein said first leg has a backface at the periphery of said drill bit body, said backface being tapered at an angle to said longitudinal axis.

48. (Currently amended) The rolling cone rock bit of claim 4547, wherein said angle is less than $\frac{1}{2}$ degree.

49. (Currently amended) The rolling cone rock bit of claim ~~23~~24, where said cross-sectional area of said junk slot continuously increases from said bottom of said nozzle boss to said top of said mud ramp.

B² 50. (Currently amended) The rolling cone rock bit of claim ~~23~~24, where said cross-sectional area of said junk slot at said top of said mud ram is at least 15% greater than said cross-sectional area of said junk slot at said bottom of said nozzle boss.

51. (Currently amended) The rolling cone rock bit of claim ~~23~~24, where said cross-sectional area of said junk slot at said top of said mud ram is at least 100% greater than said cross-sectional area of said junk slot at said bottom of said nozzle boss.

52. (Currently amended) The rolling cone rock bit of claim ~~23~~24, where said cross-sectional area of said junk slot at said top of said mud ram is between 15% and 600% greater than said cross-sectional area of said junk slot at said bottom of said nozzle boss.

Claims 53 -64 (canceled).

65. (New) The drill bit of claim 23, said drill bit including a pin shoulder proximate said top of said drill bit body, wherein said mud flow ramp has a width from said pin shoulder to a peripheral edge of said first leg.

66. (New) The drill bit of claim 23, said drill bit including a pin shoulder proximate said top of said drill bit body, wherein said mud flow ramp has a width along its entire length from said pin shoulder to a peripheral edge of said first leg.

BB 67. (New) The drill bit of claim 23, wherein said cross-sectional area generally increases along the length of said mud flow ramp.

68. (New) The drill bit of claim 23, wherein said cross-sectional area continuously increases along the length of said mud flow ramp.
